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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,463	07/18/2003	Kyung-Mo Yu	P-0563	1141

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FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER	
NGUYEN, TU X	
ART UNIT	**PAPER NUMBER**
2684	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,463	YU, KYUNG-MO	
	Examiner	Art Unit	
	Tu X. Nguyen	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-4,6,7-17,19-27* is/are rejected.

7)☒ Claim(s) *2,5,7 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/18/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-4, 15-17 and 28, are rejected under 35 U.S.C. 102(e) as being anticipate by Miyoshi et al. (US Patent 6,788,737).

Regarding claim 1, Miyoshi et al. disclose an uplink (see col.8 lines 1-5) synchronization detecting method of a mobile communication system, comprising:

comparing a synchronization detection (see col.3 lines 52-53, col.4 lines 20-25, "time difference" corresponds to "synchronization detection") threshold value set for each section (see col.5 lines 51-54) of a time period in which a quality of a pilot is measured (see col.1 lines 37-51), and

a pilot bit error rate calculated for each section (see col.5 lines 31-40); and

judging a synchronization detection by a result of said comparing (see col.5 lines 41-65).

Regarding claim 15, Miyoshi et al. disclose a mobile communication system, comprising:

logic configured to compare a synchronization detection threshold value set for each section of a time period (see col.3 lines 52-53, col.4 lines 20-25), wherein a pilot bit error rate is calculated for each section (see col.5 lines 31-40); and

logic configured to determine a synchronization detection for each section based on a result of said comparison (see col.5 lines 41-65).

Regarding claims 3 and 16, Miyoshi et al. disclose the time period for measuring the pilot quality includes a plurality of frames or a plurality of slots (see col.4 lines 22-23).

Regarding claims 4 and 17, Miyoshi et al. disclose the result of the comparison indicates the pilot bit error rate is smaller than the synchronization detection threshold value set for the section (see col.5 lines 42-50), synchronization is indicated (see col.4 lines 20-21).

Regarding claims 28, Miyoshi et al. disclose wherein the system is a base station (see col.8 lines 1-5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6, 8-14, 19-20 and 22-27, are rejected under 35 U.S.C. 102(e) as being anticipated by Miyoshi et al. (US Patent 6,788,737) in view of Tamura (US Patent 6907049).

Regarding claim 6, Miyoshi et al. disclose an uplink synchronization detecting method of a mobile communication system comprising:

calculating a pilot bit error rate (BER) of an uplink (see col.5 lines 15-20, col.8 lines 1-5) for a first section;

comparing the first pilot BER calculated for the first section with a first synchronization detection threshold value set for the first section (see col.1 lines 30-36);

judging the uplink is in synchronization status if the first pilot BER is smaller than the first synchronization detection threshold value (see col.3 lines 59-60);

calculating a second pilot BER of the uplink for a second section if the first pilot BER is not smaller than the first synchronization detection threshold value (col.4 lines 20-25);

comparing the second pilot BER calculated for the second section with a second synchronization detection threshold value set for the second section (see col.1 lines 37-51); and

judging the uplink is in synchronization status if the second pilot BER is smaller than the second synchronization detection threshold value (see col.5 lines 17-20).

Miyoshi et al. fail to disclose a finger.

Tamura discloses a finger (see col.9 lines 34-49). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Miyoshiet et al. with the above teaching of Tamura in order to despread signals sent over the allocated paths.

Regarding claims 8 and 22, the modified Miyoshi et al. disclose the first and second sections comprise frames or slots (see Miyoshi, col.4 lines21-22).

Regarding claims 9 and 23, the modified Miyoshi et al. disclose the second section includes the first section and a prescribed numbers of frames to be accumulated to the first section (see Miyoshi, col.7 lines 64-66).

Regarding claims 10 and 24, the modified Miyoshi et al. disclose the second section includes the first section and a prescribed numbers of slots to be accumulated to the first section (see Miyoshi, fig.1 and fig.5).

Regarding claim 11, the modified Miyoshi et al. disclose comprising other sections in addition to the first and second sections (see Miyoshi, 303, 304, fig.5).

Regarding claims 12 and 26, the modified Miyoshi et al. disclose a length of the section for calculating the pilot BER corresponds to the synchronization detection threshold value (see Miyoshi, col.2 lines 3-16).

Regarding claims 13 and 27, the modified Miyoshi et al. disclose wherein as the length of the section for calculating the pilot BER decreases, the synchronization detection threshold value decreases (see Miyoshi, col.2 lines 3-16).

Regarding claims 14 and 25, the modified Miyoshi et al. disclose the first synchronization detection threshold value is smaller than the second synchronization detection threshold value (see Miyoshi, col.5 lines 55-65).

Regarding claim 19, Miyoshi et al. disclose logic configured to calculate a pilot bit error rate (BER) of an uplink (see col.5 lines 15-20, col.8 lines 1-5) for a first section;

Logic configured to compare the first pilot BER calculated for the first section with a first synchronization detection threshold value set for the first section (see col.1 lines 30-36);

Logic configured to determined the uplink is in synchronization status if the first pilot BER is smaller than the first synchronization detection threshold value (see col.3 lines 59-60);

Miyoshi et al. fail to disclose a finger.

Tamura discloses a finger (see col.9 lines 34-49). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Miyoshiet et al. with the above teaching of Tamura in order to despread signals sent over the allocated paths.

Regarding claim 20, Miyoshi et al. disclose logic configured to calculate a pilot bit error rate (BER) of an uplink (see col.5 lines 15-20, col.8 lines 1-5) for a second section;

Logic configured to compare the first pilot BER calculated for the second section with a first synchronization detection threshold value set for the first section (see col.1 lines 30-36);

Logic configured to determined the uplink is in synchronization status if the second pilot BER is smaller than the first synchronization detection threshold value (see col.3 lines 59-60);

Miyoshi et al. fail to disclose a finger.

Tamura discloses a finger (see col.9 lines 34-49). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Miyoshiet et al. with the above teaching of Tamura in order to despread signals sent over the allocated paths.

Allowable Subject Matter

5. Claims 2, 5, 7 and 18, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding dependent claims 2 and 18, the prior arts fail to teach "if a pilot bit error rate calculated in a certain section is smaller than the synchronization detection threshold value set

for the section, it is judged to be in synchronization status, if a pilot bit error rate calculated for every section is not smaller than a synchronization detection threshold value set for every section, a pilot bit error rate calculated for a first section is compared with a certain synchronization failure threshold value, and then, if the pilot bit error rate of the first section is greater than the synchronization failure threshold value, it is judged to be synchronization failure", as cited in the claim.

Regarding claim 5, Miyoshi et al. the prior arts fail to teach "the result of the comparison for every section indicates the pilot bit error rate every section is not smaller than a corresponding synchronization detection threshold value set for every section (see col.5 lines 42-50), a pilot bit error rate calculated for a first section is compared with a synchronization failure threshold value, and then, if the pilot bit error rate of the first section is greater than the synchronization failure threshold value (see col.5 lines 50-54), a synchronization failure is indicated", as cited in the claim.

Regarding dependent claim 7, the prior arts fail to teach "judging the uplink is out of synchronization if the first pilot BER is greater than the synchronization failure threshold value", as cited in the claim.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883. The examiner can normally be reached on Monday through Friday from 8:30AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

January 20, 2006

EDAN ORGAD
PATENT EXAMINER/TELECOMM.

E.O. 1/26/06